

2.3.6 Invasive Species

2.3.6.1 Regulatory Setting

On February 3, 1999, President William J. Clinton signed EO 13112 requiring federal agencies to combat the introduction or spread of invasive species in the United States. The Order defines invasive species as “any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem whose introduction does or is likely to cause economic or environmental harm or harm to human health.” FHWA guidance issued August 10, 1999, directs the use of the State’s invasive species list, maintained by the California Invasive Species Council (Cal-IPC) to define the invasive plants that must be considered as part of NEPA analysis for a proposed project.

2.3.6.2 Affected Environment

This section discusses invasive species with the potential to occur within the BSA. This section has been prepared based on the analysis and findings presented in the *Natural Environment Study* (June 2016) and *Errata* (June 2018)

Seeds of invasive species can be transported to natural open space areas through a variety of mechanisms, including vehicles. Recurring fires can encourage the establishment of invasive species and so can some forms of routine land maintenance (e.g., disking). The impact invasive species have on southern California native vegetation communities, as well as the plants and animals that are found within these areas, is, in some circumstances, catastrophic. Therefore, a need exists to identify and recommend measures that reduce and/or avoid further transport of invasive species into natural open space areas.

The Cal-IPC Invasive Plant Inventory is based on information submitted by members, land managers, botanists, and researchers throughout the state, as well as published sources. The inventory highlights nonnative plants that are serious problems in wildlands (i.e., natural areas that support native ecosystems, including national, state, and local parks; ecological reserves; wildlife areas; national forests; and Bureau of Land Management lands). The Invasive Plant Inventory categorizes plants as High, Moderate, or Limited based on the species’ negative ecological impact in California. Plants categorized as “High” have severe ecological impacts. Plants categorized as “Moderate” have substantial and apparent, but not severe, ecological impacts. Plants categorized as “Limited” are invasive, but their ecological impacts are minor on a statewide level.

Thirty-four (34) plant species occurring on the State of California List of Noxious Weed Species listed as Cal-IPC's Invasive Plant Inventory list species were observed in the BSA. Six of these species are rated as "High," 16 of these species are rated as "Moderate," and 12 of these species are rated as "Limited."

2.3.6.3 Environmental Consequences

Alternative 1 (No Build)

Alternative 1 does not propose any construction or other disturbance in the BSA; therefore, this alternative would not result in long-term impacts related to the introduction or spread of invasive species to or from the BSA and would not cause permanent direct or indirect impacts regarding invasive species.

Build Alternative 2 (Preferred Alternative) and Build Alternative 3

Construction (Short-Term) Impacts

Implementation of the build alternatives (Alternatives 2 and 3) would have the potential to spread invasive species by the entering and exiting of construction equipment contaminated by invasive species, the inclusion of invasive species in seed mixtures and mulch, and the improper removal and disposal of invasive species so that seed is spread along the highway. The plant palette used for revegetation would not include invasive species; therefore, the build alternatives for the proposed project would not have a substantial effect on invasive species.

2.3.6.4 Avoidance, Minimization, and/or Mitigation Measures

In compliance with the Executive Order on Invasive Species, EO 13112, and guidance from the Federal Highway Administration (FHWA), the landscaping and erosion control included in the project will not use species listed as invasive. None of the species on the California list of invasive species is used by the Department for erosion control or landscaping in Orange County. All equipment and materials will be inspected for the presence of invasive species and cleaned if necessary. In areas of particular sensitivity, extra precautions will be taken if invasive species are found in or next to the construction areas. These include the inspection and cleaning of construction equipment and eradication strategies to be implemented should an invasion occur.

The following measures will avoid, minimize, or mitigate potential temporary and permanent impacts related to invasive species. Standardized measures which are employed on most, if not all, Caltrans projects are indicated in bold.

BIO-18: Equipment Cleaning. All construction equipment entering and exiting the project construction site will be inspected and cleaned prior to use in the project footprint to minimize the importation of non-native plant material.

BIO-27: Invasive Species Control. Invasive species will be removed from the project work area and controlled during construction. The use of known invasive plant species (i.e., plant species listed in Cal-IPC's California Invasive Plant Inventory with a High or Moderate rating) will be prohibited for construction, revegetation, and landscaping activities. Project measures will be included to ensure invasive plant material is not spread from the project site to other areas by disposal offsite or by tracking seed on equipment, clothing, and shoes. Equipment/material imported from an area of invasive plants must be identified and measures implemented to prevent importation and spreading of nonnative plant material within the project site. All construction equipment will be cleaned with water to remove dirt, seeds, vegetative material, or other debris that could contain or hold seeds of noxious weeds before arriving to and leaving the project site. Eradication strategies (i.e., weed abatement programs) will be employed should an invasion occur during construction.

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